UNITED STATES DEPARTMENT OF AGRICULTURE
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RECENT RELEASES OF NEW VARIETIES - NO. 3 1/

Wheat

Tascosa (C.I. 13023) - A new variety of hard red winter wheat developed by the Small Grains Section of the Texas Agricultural Experiment Station in cooperation with the Crops Research Division of the U. S. Department of Agriculture. Tascosa differs considerably from present commercial varieties grown in Texas. The plants are shorter in stature and the straw is strong, which aids in resistance to lodging. The glumes are brown but are considerably darker than Concho. The kernels are short to medium long. The variety resists shattering and may require special setting of the concaves for threshing because the kernels are held tightly by the glumes. It has an excellent yield record in trials in Texas and in the USDA hard red winter wheat yield nursery grown throughout the Great Plains States. Milling and baking characteristics of Tascosa appear to be equal or superior to those of Comanche in most respects.

Milam (C.I. 13369) - A new variety of hard red winter wheat developed by the Small Grains Section of the Texas Agricultural Experiment Station in cooperation with the Crops Research Division of the U.S. Department of Agriculture. Milam is a relatively short, strong-strawed variety which matures about 2 weeks later than Seabreeze, but slightly earlier than Quanan or Atlas 66. The chaff is white and the spike awned. Plants are somewhat variable in height and seedling growth is intermediate winter-spring in habit. It has shown outstanding resistance to races of stem rust prevalent in Texas in recent years and is resistant to many races of leaf rust. Milam produces a good loaf of bread, but is not a strong gluten wheat. Since Milam will be grown principally for winter pasture in South Texas, it is not expected that much grain will be milled.

Wakeland (3855) - A new winter wheat variety was developed and released by the North Carolina Agricultural Experiment Station. It is early, short strawed and high yielding. It matures 7 to 8 days ahead of Atlas 66 and it is intermediate in winter growth habit. Milling tests by the Federal Soft Wheat Laboratory found Wakeland to be harder in texture than typical soft wheats. Flour mill tests have been favorable. It has a good test weight and flour turnout. Wakeland has fair leaf rust resistance with some tolerance to mildew and mosaic. It should not be used where mosaic is a problem. Tests show Wakeland to have as much winter hardiness as Atlas varieties. Where an early variety is desired, Wakeland is recommended for rotation with soybeans or grain sorghum.

1/ Information furnished by State extension agronomists, summarized by J. M. Saunders, Extension Agronomist.

Wheat (cont'd.)

Ace (T1123-3) - A soft winter wheat developed and released by the Arkansas Agricultural Experiment Station. Ace possesses a high degree of resistance to the currently present races of leaf rust which includes races 5, 6, 9, 11, 15, 58, 105 and 122. It is susceptible to race 54. It is highly resistant to powdery mildew, soil borne mosaic virus and is moderately resistant to speckled leaf spot. It is also resistant to loose smut races 12, 13, 17 and 18, moderately susceptible to races 3, 5, 6, 8, 9, 10 and susceptible to races 1 and 2. The new variety has resistance to Hessian fly and joint worm. Ace is midtall, midseason in maturity, winterhardy and has strong straw. The strong straw normally results in less than one-half the amount of lodging of Chancellor. The yield has been comparable to or better than Chancellor or Taylor.

Redcoat - A soft red winter wheat variety developed at the Purdue University Agricultural Experiment Station in cooperation with the U.S. Department of Agriculture. Redcoat is a beardless, white-chaffed variety, two days earlier and $2\frac{1}{2}$ inches shorter than the Dual variety. Its straw strength is superior to that of any variety now grown. In test weight Redcoat has been much superior to Dual, but slightly below Knox and Vermillion. Its milling and baking quality is satisfactory and in the range of the present commercial varieties. The winter survival of Redcoat has been equal to that of Knox and LaPorte but slightly below that of Dual and Vermillion. Redcoat possesses high resistance to more serious diseases than any variety now grown. These diseases include leaf and stem rusts, powdery mildew and mosaic. It is less susceptible to loose smut than present varieties, except LaPorte. Redcoat is as resistant to hessian fly as Dual, which has been highly resistant, even in early seeding. Redcoat has shown a tendency to shatter during some dry harvest seasons. The amount of shattering has been about equal to that of Vigo. Because of this tendency, it is recommended for production under high fertility conditions, where losses from lodging are more important than those from occasional shattering.

Ottawa (C.I. 12804) - A hard red winter variety developed and released jointly by the Kansas Experiment Station and the U.S. Department of Agriculture. The most important characteristics of Ottawa, in comparison with other red winter wheat varieties suitable for eastern Kansas, are resistance to soil-borne mosaic, leaf rust, and hessian fly; stiff straw; and some resistance to stem rust. Ottawa is susceptible to wheat streak mosaic and bunt or stinking smut like Ponca. In Kansas variety trials since 1955, the yield and test weight of Ottawa has been slightly above Pawnee and Ponca. It will most likely replace acreage now planted to Pawnee.

Kaw (C.I. 12871) - A winter wheat developed and released jointly by the State Experiment Stations of Oklahoma and Kansas. Kaw is early maturing, about the same as Wichita, and 2 or 3 days later than Triumph. Has good "mature plant" resistance to leaf rust, also resistant to bunt. Less shattering than Wichita. Grain is resistant to weather bleaching in the field and outstanding in test weight. It has one of the highest yields in Oklahoma tests since 1952. Has excellent milling quality. Normally exhibits good baking quality. May lodge on fertile soils in high rainfall areas, with straw strength slightly better than Wichita. It is most likely to replace some of the Triumph acreage.

Wines (cont'd)

Ace (1972-73) - A dark winter wheat developed and released by the Saltpeter Experimental Improvement Station. It's particularly high during periods of moisture stress, but is susceptible to rust. Ace is 5% to 8% taller than Bonanza, and matures 3 days later than Bonanza. It is slightly resistant to shattering and lodging. It is susceptible to leaf rust. Ace is moderately resistant to stem rust. It is susceptible to powdery mildew and moderately resistant to Septoria leaf spot. It is also moderately resistant to root rot. It has performed well in Colorado and Kansas. Ace is moderately susceptible to cereal cyst nematode. It is also moderately susceptible to greenbug. It has performed well in Colorado and Kansas. Ace is moderately susceptible to cereal cyst nematode. It is also moderately susceptible to greenbug.

Glen (C.I. 15971) - A winter wheat developed and released jointly by the Glenn Agricultural Experiment Station and the Department of Agronomy. Glen is resistant to races 1, 2, 3, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44,

Wheat (cont'd.)

Lathrop (C.I. 13457) - A spring wheat developed in cooperation between the Wisconsin Agricultural Experiment Station and the U.S. Department of Agriculture. Lathrop, a common bearded wheat, is resistant to Hessian fly. It is similar to Henry and cannot be definitely distinguished from the Henry parent in any character observed to date. In field tests, Lathrop is similar to Henry in heading date, plant height, lodging, and in reaction to powdery mildew, leaf rust, and stem rust. Field appearances and head type of the two varieties are very similar and the range of adaptation appears to be the same. Limited milling and baking tests indicate that bread-making qualities of Lathrop and Henry are similar. If additional tests support this, Lathrop will be classed as a feed wheat. It has large red kernels, intermediate in texture like those of Henry, but they may be slightly smaller in size. It will most likely replace acreage now planted to Henry.

Oats

Dodge (C.I. 7269) - This spring oat variety was developed by a group of plant scientists at the University of Wisconsin in cooperation with the U.S. Department of Agriculture. Dodge will provide farmers with some of the best leaf rust resistance available in combination with straw of good quality. This variety should find a place where Clintland has been popular in the past few years. Dodge resists most of the prevalent races of leaf rust including race 290. It resists the common races of stem rust including 7, 7A, and 8. It is, however, susceptible to some of the rare races that occur in the eastern United States and Canada. It is also susceptible to the "yellow dwarf" or "red leaf" disease and is not completely resistant to smut. Dodge has straw that is strong and medium in height. The variety heads and ripens a little sooner than midseason, or perhaps the same time as Clintland or Goodfield. It will likely find most use on fertile or highly fertile soils. Bushel weight is similar to Beedee. The hull color is yellow and tends to produce an attractive grain when harvested under dry conditions.

Blount (54-8) - A winter oat variety developed by Newman I. Hancock, plant breeder with the Tennessee Agricultural Experiment Station. Blount (tested as the experimental Tenn. 54-8 strain for five years) grows 4 to 6 inches shorter than LeConte and Forkedeer and has a stiff straw similar to that of LeConte. This quality makes Blount especially good for planting on highly fertile and bottom soils and where high applications of nitrogen are used. Blount matures slightly earlier and is about equally winter hardy as LeConte. It does not lodge as badly as Forkedeer nor is it as early maturing or as winter hardy. It will most likely replace LeConte.

Carolee (64) - A winter oat variety developed and released jointly by the North Carolina Experiment Station and the U.S. Department of Agriculture. Carolee is a promising new short-strawed variety of medium maturity. It is winterhardy and has a good yield record in both the official variety and breeder's tests. It is susceptible to crown rust and to mosaic but is apparently tolerant of certain conditions which exists at Clayton, Plymouth and other areas of the State.

Oats (cont'd.)

Norline - A winter oat variety developed at Purdue University in cooperation with the U.S. Department of Agriculture. Norline has considerably greater winter hardiness than the presently most winterhardy commercial variety, Dubois. Its adaptation to the northern extremity of the winter oat area is recognized in the selection of the name, Norline. The yield of Norline has been about equal to that of Dubois and Forkedeer, the presently best adapted varieties, in the Indiana and interstate tests. The Norline kernel is light yellow, occasionally brown tinged. A portion of the kernels have a small fragile awns. Test weight and percentage of groats are high, being about equal to those of Dubois and Forkedeer. Standing ability of Norline is about equal to that of Dubois, the best standing of the hardy varieties. It possesses a moderate degree of resistance to crown rust, being superior to Dubois in this respect.

Portage (C.I. 7107) - The new spring oat variety was bred at the University of Wisconsin in cooperation with the U.S. Department of Agriculture and with financial support by the Quaker Oats Company. Portage has tall straw that is moderately strong. Yields have been high and bushel weight is good; but not as high as Beedee. Hull color is almost white, making an attractive grain. It has a good grade of leaf rust resistance being perhaps a little better than for Beedee. The new variety resists races 216 and 290; but not 203 and 264. It also resists smut and races of 7 and 7A of stem rust, but not 8. Stem Septoria is greater for Portage than Ajax or Branch, but less than for Fayette or Garry. Portage has limited tolerance to "red leaf". Since the straw of the new variety is tall it will find most use on soils of medium fertility and will thereby compete with Ajax and Branch.

BARLEY

Wade (392) - Developed and released by the North Carolina Experiment Station. Wade is a short-awned variety with about the same reaction as Davie to leaf rust, mildew and scald, and in addition has fair loose smut resistance which Davie does not have. In advanced tests conducted in North Carolina during the past three years, its yield performance has not been significantly different from that of Colonial 2 and Davie, but it has had superior test weight.

Decatur - A new winter barley developed jointly by the Purdue University Agricultural Experiment Station and the U.S. Department of Agriculture. Release has been made to certified seed growers for the 1960 fall seedings. The outstanding characteristic of Decatur is its exceptional standing ability both before and after ripening. Its straw strength has been superior to other varieties before ripening and at combining time. The new variety is a six-rowed variety with lax (long) heads and smooth awns. It is medium in height, excellent in straw strength and midseason in maturity, being later than Kenbar and earlier than Kentucky No. 1. Decatur is considered a feed barley. It is about average in test weight with other varieties. The malting and brewing qualities have not been determined. This variety appears similar in winter hardiness to the hardier varieties. It is resistant to leaf scald and is moderately resistant to leaf rust and net blotch. It is susceptible to powdery mildew, loose smut and stem rust.

Barley (cont'd.)

Chase (C.I. 9581) - A winter barley developed cooperatively by the Nebraska Agricultural Experiment Station and the Crops Research Division of the U.S. Department of Agriculture. Chase is a 6-rowed, hulled, rough-awned, winter-type barley. It has been surpassed in winter hardiness only by Kearney and Dicktoo in the Uniform Winter Hardiness Nursery as indicated by 3-year average survival. Chase has been superior to Kearney and Dicktoo in resistance to lodging and is similar to these varieties in plant height and heading date. Chase has been superior to Kearney and Dicktoo in grain yield. It appears to have tolerance to net blotch and has been relatively free of powdery mildew under conditions in which heavy infection of many other varieties occurred. It is susceptible to loose smut. Chase will supplement Kearney and Dicktoo but will not entirely replace these varieties.

Meimi - An awned, six-rowed, club headed, wide-leaved winter barley. The original lot of seed was introduced from Korea in the 1930's, but it was later purified by the Colorado Experiment Station and released in that State for growing under irrigated conditions in 1956. In Kansas tests since 1956 Meimi has equalled or excelled recommended varieties in yield and test weight at most experimental locations, and has been about one day earlier in maturity than the earliest recommended variety, Dicktoo. Despite a somewhat lower winterhardiness level than Dicktoo, Meimi is expected to replace some of the Dicktoo acreage in the northern and western areas of Kansas because of better standability, a lower percent of thin kernels, and superior test weight.

Early Wong (C.I. 6728) - A winter variety of barley developed in cooperation with the U.S. Department of Agriculture and released by the New Jersey Experiment Station. Early Wong is very similar to Wong and should be adapted to same areas. The Early Wong variety provides a barley that can be harvested sufficiently early in South Jersey that a subsequent crop can be planted in the same year. The plant and grain characteristics are generally equal to Wong but it is quite superior in bushel weight. The yielding ability of this barley is slightly below Wong but it has consistently produced good yields. Disease reaction of the two varieties are essentially the same and the benefits and problems should be nearly the same for the two varieties. Wong is the variety it will most likely replace.

Beans

Saginaw - This new disease-resistant dry bean variety has been released jointly by the U.S. Department of Agriculture and the Michigan Agricultural Experiment Station. In a series of tests in Michigan, other States, and Canada, Saginaw averaged 36.8 bushels per acre compared to 25.9 for Michelite, a commonly grown variety. Saginaw is the first navy-bean variety combining resistance to two major bean diseases--anthracnose and common bean mosaic--with superior plant type and good canning qualities. Tests under way since 1958 in Michigan and other major bean-growing areas of the United States indicate that the new variety is adapted to cultivation under a wide range of conditions. Seed of Saginaw will be available to certified seed growers in 1962 and should be available to commercial bean growers for planting in the Spring of 1963.

Beans (cont'd.)

Michelite 62 - A re-selection made in 1958 from Michelite foundation seed fields in Idaho and released jointly by the U.S. Department of Agriculture and the Michigan Agricultural Experiment Station. Because of the superiority of this new bean compared to Michelite beans now widely grown, scientists believe it is desirable to substitute this selection for the older varieties as soon as possible. Michelite-62 has greater uniformity of seed type, plant type, maturity and appearance than Michelite and is completely resistant to common bean mosaic strain 1. Michelite is only partly resistant to this disease. Seed of Michelite-62 will be available to certified seed growers in 1962 and should be available to commercial bean growers for planting in the Spring of 1963.

Seaway - The Michigan Agricultural Experiment Station and the U.S. Department of Agriculture jointly released a new, early maturing, bush-type, common bean mosaic resistant navy bean. The variety is resistant to the prevalent strains of common bean mosaic, a virus disease complex to which Sanilac and Michelite varieties are only partially resistant. The seed is similar in shape and quality to seed of the variety Sanilac. It matures five to twelve days earlier than Sanilac and twelve to eighteen days earlier than the variety Michelite. In seven years of testing even though the new variety matures about two weeks earlier than Michelite, it still produces approximately the same yield. Seed will be available to Michigan Certified Seed Growers in 1961 and should therefore be available in quantity for commercial bean growers in the Spring of 1962.

Nebraska #1 - A spring, dry field bean developed and released by the Nebraska State Experiment Station. Nebraska #1 plants are shorter than Great Northern #59 in maturity. Foliar characteristics in young plants resemble the Tepary parent but later stages of vegetative growth appear more like P. vulgaris. Flower petals are white with lavendar pigmentation at their bases. Seeds are white and their size comparable to that of the Great Northern, but more variable in size. Yields of Nebraska #1 were comparable to those of Great Northern and Pinto strains in Nebraska outstate trials in 1959-60 and in the Regional Trials in 1960. It also exhibited a high degree of resistance to common blight under field conditions in 1960 with 10 to 20% foliar infection in comparison to 30 to 80% in Great Northern and Pinto strains. Nebraska #1 is recommended for production in the Nebraska Panhandle on the basis of these tests.

Soybeans

Bethel (UD 321) - Is the result of an individual plant selection made by Dr. H. W. Crittenden, Department of Plant Pathology, University of Delaware, and tested in cooperation with the Department of Agronomy and the U.S. Department of Agriculture. The new Bethel soybean is adapted to those areas in Delaware, Maryland and Virginia where the root-knot nematode is a problem of horticultural crops. Control of the root-knot can be obtained in those areas with two years of Bethel soybean production. Following this treatment, the areas can be returned to horticultural crop production. This rotation permits production of a cash crop while controlling the nematode. Bethel is an erect, branching variety of medium height, with white flowers and gray pubescence. It matures 6 to 10 days later than Wabash and Clark and 4 to 8 days earlier than Dorman and Hill. It averages 46 inches in height and stands nearly as well as Clark and Wabash. Bethel has medium sized yellow seeds of very good quality. Bethel is high in oil and protein content, averaging 21.0% and 41.6% respectively on a dry basis. The Agricultural Experiment Stations of 10 States cooperated in testing Bethel. Initial seed stocks are now being produced and seed should be available to farmers in 1961 in limited amounts.

Kent (C.I. 068) - Developed and tested by workers of the U.S. Department of Agriculture and cooperating agricultural experiment stations and released jointly by: Kansas, Delaware, Maryland, Indiana and Illinois. Kent is a full season variety, selected from a cross between Lincoln and Ogden. In regional trials Kent has shown resistance to downy Mildew and frog-eye leaf spot, including a new race of leaf spot to which Clark is susceptible. Kent and Clark are very similar in oil and protein content, averaging 22 and 41 percent respectively on a dry weight basis. In other agronomic characters, Kent is similar to Clark in growth habit, plant height, lodging and quality of seed. Kent is superior to S-100 in resistance to lodging and is about 7 inches shorter in height. The seed of Kent is yellow with a black hilum (scar). In maturity Kent is about 8 days later than Clark, and about 4 days earlier than S-100. The plants produce a dense, spreading, dark-green foliage, and have purple flowers and brown pubescence.

Castorbean

Hale - A new dwarf-internode castorbean variety adapted for production in irrigated areas such as the High Plains of Texas, Oklahoma, Kansas and New Mexico, has been released cooperatively by the U. S. Department of Agriculture and the Texas Agricultural Experiment Station. The new variety yields well and is resistant to bacterial leaf spot and Alternaria leaf spot. Hale has a better root system than many other castorbean varieties. However, if grown under conditions of too much nitrogen and excessive soil moisture, its stems tend to be weak. Weak stems, coupled with heavy fruit set and high winds before harvest, can cause lodging. Hale matures about one week later than Baker-296, and a week earlier than Dawn. Hale yields substantially more than Baker-296 or Dawn. Plants are adapted to mechanical harvesting, because the first fruiting spike is well above ground level and fruiting branches are erect. Seed capsules of Hale are non-shattering and are easily removed from the dry plants after frost by mechanical harvesters. Seed weight, size, and quality are acceptable for planting and crushing. Seed hulling and cleaning are easy. Oil content averages 51 percent. Hale has some drought tolerance but is not generally recommended for dryland planting because satisfactory yields cannot be obtained consistently. Because of possible mold damage to the seed capsules, it is not recommended for areas of high rainfall. A limited amount of seed is available to seed producers for planting this year. Names of seed suppliers will be furnished by the Texas Agricultural Experiment Station, College Station, Texas upon request.

Safflower

U.S. 10 - Developed by Dr. C. A. Thomas of the Crops Research Division, U.S. Department of Agriculture and released with USDA approval by the California Experiment Station in 1959 after extensive testing. It was obtained from a cross of N10 and Western Oilseeds 14 backcrossed to N10. The resistance of Western Oilseeds 14 to Phytophthora root rot was transferred through these back crosses to U.S. 10. Except for its resistance to root rot, it is practically identical to N10.

Gila - Developed cooperatively by the U.S. Department of Agriculture and the Arizona Experiment Station and released by the latter. Somewhat similar to N10, it is higher in oil content and produces more branches and a more dense population of heads. Yields are similar to U.S. 10. It is superior in resistance to root rot to N10 but less resistant than U.S. 10.

Clover

Merit - A ladino clover developed by the Iowa State University. Selected for western corn belt conditions, it has shown more drouth tolerance and persistence than common ladino. It also is more uniform in plant type.

Alfalfa

F. D. 100 - The Tailor-Walcott Company, of San Francisco, has the exclusive right of multiplication or distribution in the United States and Canada of this alfalfa variety, which is the property of La Maison Florimond Desprez of France. The variety is quite similar in appearance and characteristics and performance of DuPuits and other Flemish varieties except that it is more erect in growth habit and less susceptible to lodging. It has good resistance to mildew, but it is not a wilt resistant variety. It is considered to be adapted to north Atlantic and cornbelt States.

Culver - A new alfalfa variety developed by Purdue's departments of agronomy, entomology and botany and plant pathology in cooperation with the Alfalfa Improvement Conference. It is a winter hardy dormant type with dark green foliage. It is resistant to wilt and partly resistant to leaf spot diseases and heaving. In addition to being resistant to meadow spittlebugs, Culver has a lesser resistance to the potato leafhopper and spotted alfalfa aphid. Under normal infestation by the spittlebug, Culver can be expected to perform well without the use of insecticides. However, with epidemic infestations, an insecticide is considered worthwhile.

Grasses

Sterling - An orchardgrass developed by the Iowa State University. It has approximately the same disease reaction as commercial. Sterling is superior to Common and Potomac orchardgrass in stand establishment, drouth tolerance, forage and seed yield. Seed yields are outstanding.

Pennlate - A new variety of orchardgrass released jointly by the Pennsylvania Agricultural Experiment Station and the U.S. Regional Pasture Research Laboratory of ARS. It is vigorous and persistent; similar in quality to S-37 but more winter-hardy. It matures a week to ten days later than Common or Potomac. Pennlate is probably adapted to orchardgrass areas in Northeastern States. Breeder and Foundation Seed--Pennsylvania Agricultural Experiment Station; Certified Seed--Approximately 13,000 pounds available for 1961.

Premier - A new variety of sideoats grama released by the Texas Agricultural Experiment Station. It is superior to commercial strains in its ability to grow and produce seed under limited moisture conditions. Premier continued to grow and produce limited seed crops during two dry years at the Spur and Big Spring Stations when commercial strains were inactive, producing no seed. The forage quality of Premier is high due to its stout upright stems bearing long broad leaves - giving a good leaf-stem ratio. Yields compare with the best established strains. Foundation seed will be maintained by the Foundation Seed Section, Texas Agricultural Experiment Station, College Station, Texas. An adequate supply of certified seed should be available through commercial channels for general planting in 1961.